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Abstract of the Disclosure

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The method and system provides a set of permutation primitives for current and future 2-D multimedia programs which are based on decomposing images and objects into atomic units, then finding the permutations desired for the atomic units. The subword permutation instructions for these 2-D building blocks are also defined for larger subword sizes at successively higher hierarchical levels. The atomic unit can be a 2x2 matrix and four triangles contained within the 2x2 matrix. Each of the elements in the matrix can represent a subword of one or more bits. The permutations provide vertical, horizontal, diagonal, rotational, and other rearrangements of the elements in the atomic unit.

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